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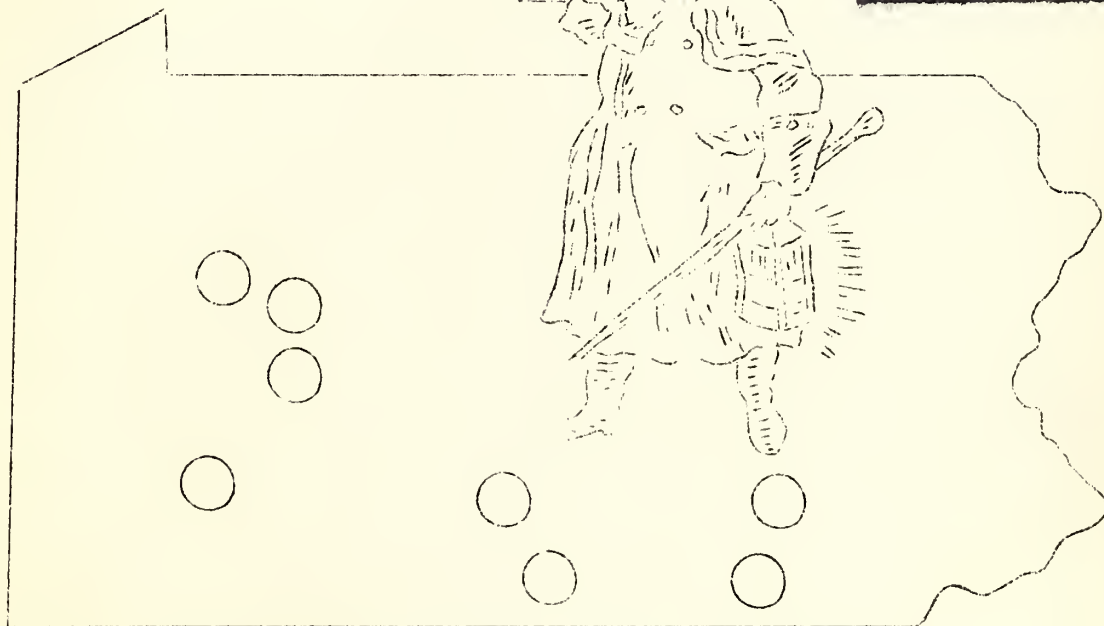
THE CRIER

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IN
THE KEYSTONE STATE

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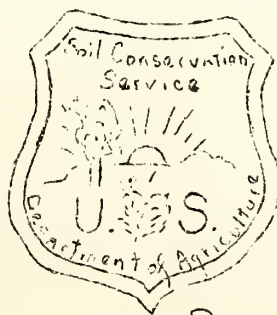
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THE CRIER

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SOIL CONSERVATION SERVICE, UNITED STATES DEPARTMENT OF AGRICULTURE

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Volume 2

February - March, 1936

No. 2

* "SPRING WILL BE HERE *
* IN THE WAG OF AN EAR *
* *
* *

* This old rhyme reminds us that it will be only a *
* short time before the heavy winter snows will disappear *
* and the frozen ground of Pennsylvania farms will be thaw- *
* ed out, and ready once more for the plow. It also re- *
* minds us that spring rains and spring plowing, if not *
* properly controlled and coordinated, may give rise to *
* especially severe erosion hazards. *
* *

* With more favorable weather conditions and with many *
* farms in need of protection against erosion, the Soil *
* Conservation Service will have plenty of work to do *
* throughout the state, in order to carry forward the *
* erosion control demonstration program already so well be- *
* gun. Tree planting; laying out of contour strips for *
* cultivation and seeding; gully stabilization; establish- *
* ment of new pastures, and many other erosion-control *
* activities will soon be in full swing, and the entire *
* organization will be busy with constructive activities. *
* *

* 1936 is going to witness important progress in the *
* fight against soil erosion in Pennsylvania---and all *
* SCS personnel is ready and anxious to do its part in *
* making the program a real success. *
* *

* All set?----Then, let's go! *
* *
* *

SEED STORAGE WAREHOUSE MOVES FROM HOMER CITY

The Soil Conservation Service seed storage warehouse in Homer City was abandoned the last week in January and a temporary set-up arranged in Indiana, Pa. The abandoned car barns have been leased for this purpose.

The new warehouse will be under the direction of Messrs. Harry G. Eby and Jack E. Smith. Mr. Eby is in charge of all propagation and nursery activities in the state.

At the present time a heated extracting room is being arranged in the new warehouse to facilitate extraction of pine seed from the cones. Some eight tons of the cones are waiting to pass through the "extracting room" as soon as it is completed. From this tonnage of cones approximately three hundred pounds of seed will be extracted.

In addition to the seed extraction work, Mr. Eby and his assistants will engage in the preparation and storage of cuttings to be used in making erosion control plantings later on. Another seed warehouse will be established in the state as soon as plans now under consideration can be carried into effect.

In too many cases land use has come to mean land abuse.



✓ DOES STRIP-CROPPING PAY?

Farmers of Belmont and Monroe Counties in Ohio think that strip-cropping does pay. And they ought to know--the rough nature of the country in that locality has forced them to practice it for a good many years.

Back in 1903 a land owner in that locality looked long and carefully at the eroding fields on his farm, noting that the topsoil was rapidly leaving his farm for points unknown. He looked, and racked his brain for a way to stop the damage. The sight made him resolve to figure out some way to meet the problem, because his eyes told him that if he did not do so, there would eventually be no tillable soil left on his land. Strip-cropping, it turned out, was his answer to the question of how to prevent erosion.

The thirty-two years that have elapsed since 1903 have shown the wisdom of this farmer's course. Not only has he checked erosion on his farm, but his yields have doubled, and, in a few cases, tripled. Erosion control, together with the resulting better absorption and increased storage of rainfall, have demonstrated the cash value of proper land use.

Neighboring farmers in the vicinity, along the Ohio-West Virginia

line soon recognized the value of his methods and proceeded to strip-crop their own farms. That strip-cropping has proved valuable is attested by their continuance of the practice.

Furthermore, the particular township where strip-cropping was first taken up and where its use has been most widespread, is the wealthiest in the county. It has no state aid for schools; practically every road within its boundaries is surfaced, and it has only one person on relief. In addition, the tax rate is the lowest in the county.

To claim that strip-cropping had done all this would be stretching the imagination. Frugality and hard work are doubtless the answers. Frugality, as applied here to the soil, has paid the farmer-owners of a rough country for more than two decades.

The farmers of this locality have demonstrated that strip-cropping does pay.

Then there's the story about the farmer whose pasture was so steep that his cows started dropping calves with two long legs and two short ones.

We treat the soil as we treat ourselves;
after we're sick we call the Doctor.
But it takes so much longer to cure the soil!

A YARDSTICK FOR OUR RAINFALL

Those queer looking metal cylinders that Indiana County farmers are beginning to notice in the Crooked Creek watershed are rain gauges. Their job is exactly what their name implies--the measurement of rainfall. In this case, however, the results of the measurements are studied in relation to their influence on erosion and on the various measures of erosion control.

Rain gauges, set four miles apart, have been placed at each of the following points in the Crooked Creek watershed:

Harry Kimmel farm, Shelocta; V.S. Johns farm, route 422, six miles from Indiana; D.F. Rinn farm, Cummings Crossing; Mrs. J. B. Doty, route 19, three miles from Indiana; Levi Houck farm, Indiana; J. L. Kinter farm, Home Station; E.M. Thompson farm, Home Station; W.C. Jamison farm, Plumville; H.E. Reefer farm, Oak Grove; J.O. Aikens farm, Five Points.

With such simple, inexpensive equipment (rain gauges are usually mounted on pieces of old packing boxes, or other scrap wood) valuable erosion studies are being made to see how the gentle rain and the cloud-burst affect the farmer. Naturally, any plan of erosion control must consider the protective measures necessary to withstand a maximum fall of rain. For this reason, a knowledge of the number of inches of rainfall over the entire year is not so important to the farmer as an approximate prediction as to when periods of heavy and light rains are due. Computing the maximum fall that may be expected is the only logical way of planning protection from erosion. Absorption and storage capacities of soil must be figured in the same way for dry months.

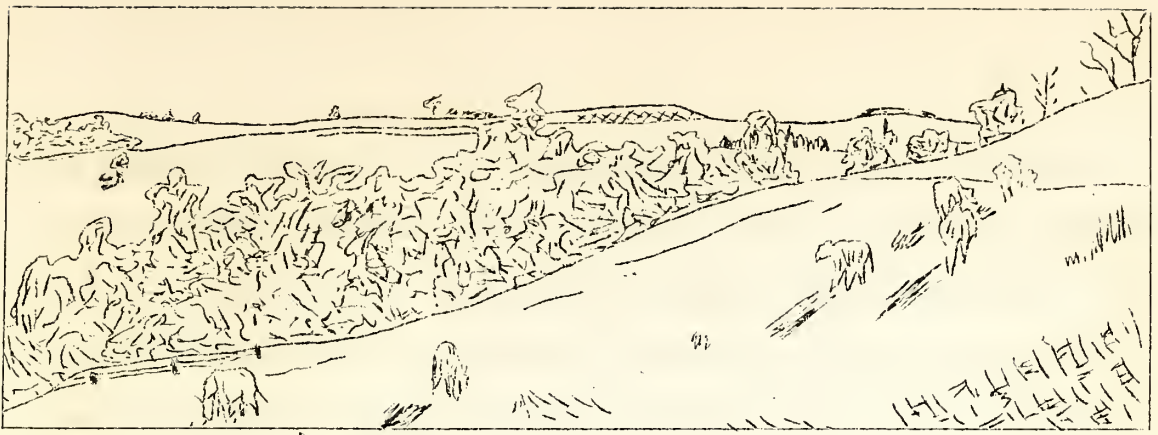
LOW QUALITY SEED NEVER A BARGAIN

Bargain-counter seed, bought from peddling truckers with a questionable reputation, has brought grief to many farmers recently. Most of this so-called cheap seed contains a large proportion of noxious weed seed and often germinates very poorly. In fact, an investigation made by U.S. Department of Agriculture officials very surprisingly revealed that a truck owner was buying screenings from a large seed house and then proceeding to palm them off, under false labeling, as a wonderful bargain in good seed.

However, the Department of Agriculture warns that any trucker who is not a common carrier and who hauls misbranded seed from one State to peddle it in another State violates the Federal Seed Act. Farmers can do their part in preventing the fraudulent branding of seed by keeping a written receipt of every seed purchase with the name of the trucker, his address, and his truck's license number. With this information the Department of Agriculture will be in a position to prosecute under the Seed Act.

The sale of misbranded seed originating within the confines of a state is subject to state law. Copies of the Pennsylvania Seed Law can be secured, free, by application to the Director, Bureau of Plant Industry, Harrisburg, Pennsylvania.

Good land use practices are the tools for hewing out a more prosperous agriculture.



SOIL CONSERVATION, PASTURES AND PROFITS

(Abstract of an article by Dr. G. F. Brown)

Bankrupt farming of cultivated crops on eroded hillsides, or an almost immediate cash return from putting the same land into carefully managed pasture--how many would choose the former, with the contrast made so self-evident? Yet a dollar-for-dollar comparison between the labor and materials necessary for the establishment of good pastures on these same slopes with the actual return from their use, for cultivated crops will reveal the scales heavily tipped in favor of the use for pasture.

In addition, a good pasture is one of the cheapest sources of animal feed. Records of leading dairymen in this state, over a long period of time, show that it costs approximately one-half as much to produce one hundred pounds of milk on a good pasture as it does with barn feeding. Since the Pennsylvania farmer owns about one-third of the total value of livestock in the North Atlantic States, the fullness of his pocketbook depends very largely on the way he maintains and establishes his pasture.

(Con't. on next page)

The use of eroded slopes for pasture has the further advantage of providing one of the easiest ways to maintain effective erosion control while the land is earning money for its owner. A good thick stand of alfalfa, bromo grass, sweet clover, wild white clover, Kentucky blue grass, Canada blue grass, orchard grass, timothy, perennial rye grass, Sudan grass, or their various combinations will provide a sod that will effectively check run-off water and absorb moisture that would otherwise be lost.

Furthermore, a good pasture sod sloughs off considerable organic matter from each tiny rootlet. In combination with the droppings of the stock, this organic matter gradually builds up the humus content of the soil, and hence, its productivity.

On the other hand, we must not forget that pastures don't "jus' grow". They require careful location; proper establishment, and proper maintenance.

The question of which slopes to use on any one farm is a problem that must be worked out with regard to the needs of the individual farmer.

After this has been done satisfactorily, the lime requirements should be carefully determined by tests. Most pasture soils in this region require liming and fertilizing to bring them back to good productivity. The application of lime should be made well in advance of the superphosphate so that there will be no delay in the process by which the insoluble phosphate is converted into a more available form. Lime, superphosphate, and potash requirements must be satisfied before much response can be had from nitrogen fertilizers.

Since pasturage affords a most effective means of erosion control, we must take care at the start that we do not follow practices which

accelerate erosion. From this point of view it is seldom advisable to use a plow because of the danger of washing. Discing of old poverty grass is sometimes necessary, but for the most part harrowing with a spring tooth will loosen the ground enough to provide a satisfactory seed bed. Newly seeded pastures can be protected from premature grazing by a thin covering of manure. It is also best to be sure all brush is removed before treatment is applied.

Now, a final word as to maintenance. Don't forget to spread the droppings and to have the shade where the soil is least fertile. And don't forget that Bossy produces more milk if she is put on pasture when the grass is 4 to 6 inches high and removed to another pasture when she has grazed it down to 1 or 2 inches. Not only will Bossy do a better job under this manner of rotation, but the sod will also be maintained in a firmer, more closely-knit and porous state, with a consequent lessening of erosion hazards.

Here, briefly then, are the cardinal rules of good land use in regards to pastures:

Determine correctly what land should go into pasture. Then establish and maintain the pasture as carefully as you would a cultivated field.

The wise farmer who abides by these practices will find that he has gone a long way on the road to soil conservation and a greater immediate return per acre.

Did you know that:

In 1935, 501,789,763 trees were planted in the United States? Pennsylvania planted 11,739,103?

The soil washed into the ocean along the eastern coast each year is sufficient to build 2,500 farms of 160 acres each?

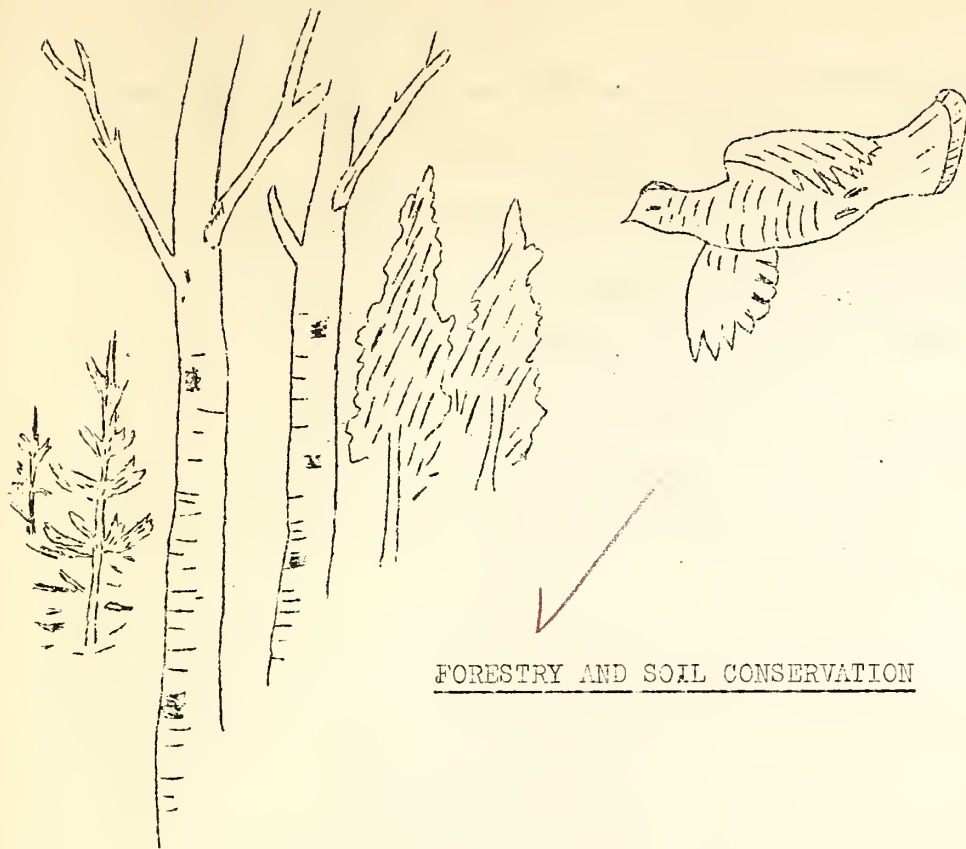
In certain sections of the United States it has been necessary to drive wells 60' deeper than was necessary 35 years ago? (The soil no longer is capable of holding as large supplies of water as formerly.)

Over two thousand (2,000) counties in the United States were covered in the Soil Conservation Service reconnaissance survey to determine erosion conditions?

1 to 4 tons of water may evaporate into the air in one day, from a single tree?

Actual tests show soil washing may be reduced as much as 18,000 times by using contour strip crops?

The Mississippi carries away 400,000,000 tons of good farm soil every year?



FORESTRY AND SOIL CONSERVATION

Back in the days when the Pine Tree flag was the emblem of our country's forefathers, man was not concerned with problems of how to plant trees and how to care for them. A munificent nature took that little matter into her own hands. The North American continent was covered by a vast mantle of forests, seemingly inexhaustible. Diameters of trees were measured in feet, not inches.

Inevitably, though, the forests melted away under the axes of the settlers, and were replaced by farms and towns. Lumbering practices were wasteful, and the farmers themselves all too often cleared steep slopes of timber that should have been allowed to remain, both for future use as farm materials and as an effective method of controlling erosion.

As a result of this clearing of steep slopes and the consequent erosion on land formerly protected by woodlands, the twin problems of forest and soil conservation have been thrown in the laps of the farmer and citizen of today. Forestry, its value and its

work has largely become known to the American people. Not so with soil conservation, however. Its work is of more recent date.

Forestry in conjunction with soil conservation varies somewhat from general forestry. Forestry in soil conservation has come to mean two things, fundamentally: First, the establishment of trees on slopes where they will serve in various ways to check erosion. Second, their proper maintenance as farm woodlands so that they will provide the farmer with a constant source of wood for use and, at the same time, afford continuous protection against soil washing.

In order to develop this second objective the Soil Conservation Service has set up a demonstrational woodland improvement program, which seeks to acquaint the farmer with good woodland management practices and to give him a greater appreciation of the actual cash value of his woodlands.

Disregarding, for a moment, the efficiency of woodlands in preventing erosion, let us turn to their dollar-and-cents value as timber. For proper usage, woodlands should be regarded as a crop, a timber crop, where periodic removal of materials needed for farm use and for sale is undertaken. Hand in hand with this periodic cutting of timber for useful purposes should go the removal of dead, dying, diseased and insect infested trees. This is the simplest method of stand improvement, for when the sick trees are removed, the future per-acre yield of the woodland is increased. Woodlands, just like gardens, are improved by wooding (thinning). Furthermore, the periodic thinning, in which some of the healthy trees are removed for sale or use, releases young, desirable trees for a future crop.

The amount of wood taken out every time the woodland is thinned, as well as the length of time between the periods of cutting, are matters that must be considered as individual problems on each farm. The activities

of the forestry department of the Soil Conservation Service are based on such a policy and the personnel are making detailed recommendations for each cooperator's farm. It must be remembered, however, that in the S.C.S. work, the products removed are purely incidental to the setting up of a proper woodland management demonstration.

In the maintenance of woodlands, brush resulting from stand improvement should be either cut in such a manner that it will lie close to the ground or it should be piled on old stumps or logs to provide a nesting shelter for birds and animals. Contrary to the general belief, the brush in a woodland seldom constitutes such a fire hazard that it becomes necessary to pile and burn it. To the contrary, if it is left as litter, instead of being burned, the forest floor, and hence the soil fertility and permeability, will be improved sufficiently to far overbalance any slight fire hazard.

In order to bring home the simplicity of these, and other factors in woodland establishment and maintenance, the Soil Conservation Service, cooperating with the Agricultural Extension Service, has arranged a number of large group meetings of farmers. To date, in Pennsylvania, there have been six such meetings. Two of them were held in Clarion county, two in Indiana county, one in York county, and one in Jefferson county. Others scheduled during the latter part of February and in March, are to be held in Lancaster, Franklin, Huntingdon and Westmoreland counties.

In addition to this, the Soil Conservation Service is actively carrying out community demonstrations of woodland improvement work throughout all state areas. The demonstrations consist of improving certain stands of woodlands, so situated that neighboring farmers can

. readily visit them and inspect the work done.

Through both of these types of demonstrations, the Soil Conservation Service hopes to point out to Pennsylvania farmers the importance of farm woodlands, both as a means of preventing erosion, and as a source of profit. With half of the forest wealth in this state existing in the form of farm woodlands, their proper maintenance is indeed an economic lesson that farm owners should study.

.*****

. Did you know that--?

Manure, improperly stored, may lose as high as 40% of its crop producing value. If it lies exposed in the barnyard, every rain will leach out valuable ingredients.

So take care of manure. It increases the moisture holding capacity of soils and leaves them less liable to erosion.

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. Don't quit too soon when preparing a seed bed. Remember that the smaller seeds require a firmer and more compact seed bed than the larger, courser varieties.

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